INITIATING

DIAGNOSING

ESTABLISHING

ACTING

LEARNING

PROCESS **QUALITY** MANAGEMENT

COMBAT DIRECTION SYSTEMS ACTIVITY, DAM NECK

NAVSEA
DAM NECK
Combat Direction Systems Activity

NAVAL SEA SYSTEMS COMMAND

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION

Background

The Combat Direction Systems Activity (CDSA), Dam Neck, has been involved in the area of Software Process Improvement for many years. In 1990, CDSA Dam Neck participated as a beta test site for the Carnegie Mellon University Software Engineering Institute (SEI) Capability Maturity Model (CMM). Since that time, CDSA Dam Neck has undergone several CMM assessments. On September 19, 1997, CDSA Dam Neck became the first U.S. Navy Tactical real-time software program developer to attain an SEI CMM Level 3 rating, thereby recognizing CDSA Dam Neck as having excellent process capability and discipline. The commitment to continuously improve our processes and to better serve our customers is a driving force toward meeting our next process improvement goal of achieving an SEI CMM Level 4 rating.

Over the years, CDSA Dam Neck's scope of work has become more diversified. For this reason, the process improvement effort has been expanded to include elements of the ISO 9001 Standard.

The Process Engineering Group (PEG)

CDSA Dam Neck has a full-time Process Engineering Group (PEG) that provides a focal point for sustaining the organization's process definition and improvement efforts. In conjunction with ongoing internal process improvement initiatives, CDSA Dam Neck has SEI trained employees and SEI Lead Assessors and Evaluators that provide services for other government sites. These teams of experts are tasked to perform Software Capability Evaluations for software acquisition contracts and CMM-Based Assessments for Internal Process Improvement to rate the software engineering processes of an organization.

This group conducts training in the following areas:
- Capability Maturity Model (CMM)
- Process Definition
- Software Engineering Process Group (SEPG)
- Team Training

Post-Assessment Assistance includes the following:
- Action Planning
- Process Implementation
- Software Process Improvement Plan Development
- SEPG Facilitation

Quality Assurance (QA)

CDSA Dam Neck's Quality Management (QM) staff is an independent group within the organization that is responsible for:
- Ensuring quality through process monitoring
- Monitoring contractors' QA processes
- Training in QA processes and procedures
- Participating as project team members
- Documenting QA processes and procedures
- Reporting QA activity to senior management

Each member of QM has been trained to perform Software Capability Evaluations and has served as a team member when evaluating outside activities and contractors.

The QM group can provide training in the areas of QA that include:
- Planning
- Monitoring
- Reporting
- Conducting peer reviews

The IDEAL Model
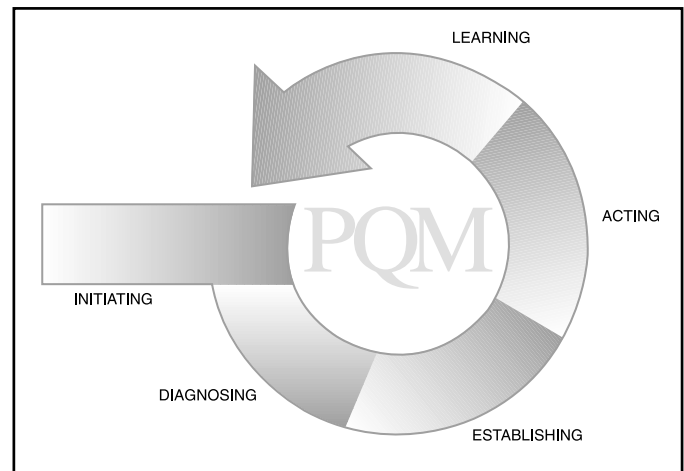
Initiating: Laying the groundwork for a successful improvement effort

Diagnosing: Determining where you are relative to where you want to be

Establishing: Planning the specifics of how you will reach your destination

Acting: Doing the work according to the plan

Learning: Learning from the experience and improving your ability to adopt new technologies in the future